abcam

ab174316

Anti-LOX antibody [EPR4025]

Anti-LOX antibody [EPR4025] (ab174316) is a rabbit monoclonal antibody detecting LOX in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 40 publications

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR4025
Purification technique	Affinity purification Protein A
Concentration	0.458 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/900
Notes	**For unpurified, use 1/300.**

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IP

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000 - 1/10000
Notes	**For unpurified, use 1/1000 - 1/2000.**

Species	Rat
Dilution info	1/1000 - 1/10000
Notes	**For unpurified, use 1/1000 - 1/2000.**

Species	Human
Dilution info	1/1000 - 1/10000
Notes	**For unpurified, use 1/1000 - 1/2000.**

ICC/IF

Tested

Species	Human
Dilution info	1/300
Notes	**For unpurified, use 1/100.**

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/100
Notes	For unpurified, use 1/30. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information Protein-lysine 6-oxidase

Function	Responsible for the post-translational oxidative deamination of peptidyl lysine residues in precursors to fibrous collagen and elastin (PubMed:26838787). Regulator of Ras expression. May play a role in tumor suppression. Plays a role in the aortic wall architecture (By similarity).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-LOX antibody [EPR4025] (ab174316) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse, Rat samples.

What is the molecular weight of LOX?
Anti-LOX [EPR4025] (ab174316) specifically detects a band for LOX (UniProt: P28300) at a molecular weight of 47kDa.

Trusted by the scientific community
Anti-LOX [EPR4025] (ab174316) was first used in a scientific publication in 2013 and has been cited over 40 times in peer-reviewed journals.

Reviewed by scientists
Anti-LOX [EPR4025] (ab174316) has over 5 independent reviews from customers.

Specificity confirmed
The specificity of Anti-LOX antibody [EPR4025] (ab174316) has been confirmed by Western blot testing in LOX Knockout HeLa cell line, ab261801.

Other related products
We have a range of other formats of antibody clone [EPR4025] also available for your convenience: ab174316, Alexa Fluor® 647 - ab197061, Carrier free - ab219369, Carrier free - ab271926, APC - ab310833, PE - ab310908, Alexa Fluor® 488 - ab310965, Alexa Fluor® 594 - ab311678, Alexa Fluor® 568 - ab312953, Alexa Fluor® 555 - ab313162, Alexa Fluor® 750 - ab321179

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

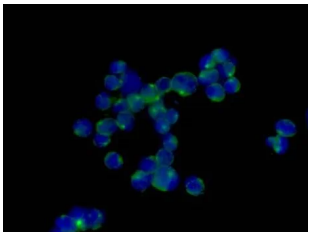
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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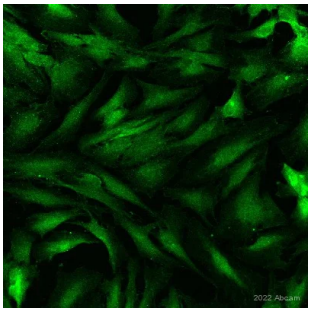
8 product images



Immunocytochemistry/ Immunofluorescence - Anti-LOX antibody [EPR4025] (ab174316)

LOX Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-LOX antibody

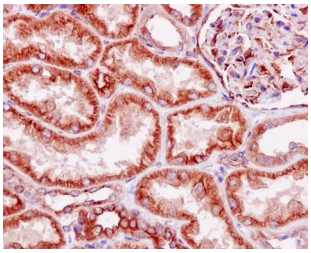
Immunofluorescence staining of Jurkat cells with purified ab174316 at a working dilution of 1 in 300 counter-stained with DAPI. The secondary antibody was Alexa Fluor® 488 goat anti rabbit used at a dilution of 1 in 200. The cells were fixed in 4% PFA.



This image is courtesy of an anonymous customer review

Immunocytochemistry/ Immunofluorescence - Anti-LOX antibody [EPR4025] (ab174316)

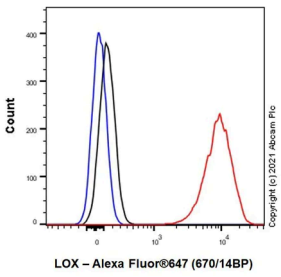
Immunocytochemistry/ Immunofluorescence analysis of formaldehyde-fixed Triton X-100 permeabilized human chondrocytes staining with ab174316 at 1/100 dilution in PBS with 0.1% triton x100. Secondary antibody was Alexa Fluor® 488 Goat Anti-Rabbit at 1/2000 dilution. Samples were incubated with the primary antibody for 30 minutes at 37°C. Blocking was with 0.1% BSA for 30 minutes at 37°C (ref: PMC7204390)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LOX antibody [EPR4025] (ab174316)

LOX Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LOX antibody

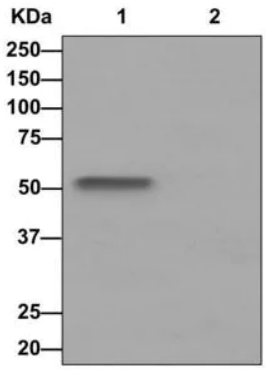
Immunohistochemical staining of paraffin embedded human kidney with purified ab174316 at a working dilution of 1 in 900. The secondary antibody used is a HRP polymer for rabbit IgG. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer pH 9.0.



Flow Cytometry (Intracellular) - Anti-LOX antibody [EPR4025] (ab174316)

LOX Flow Cytometry (Intracellular) staining using rabbit Anti-LOX antibody

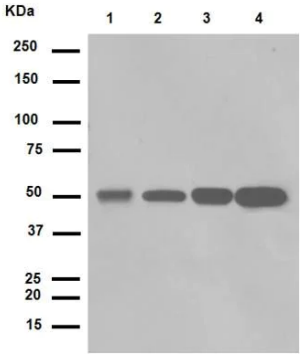
Flow Cytometry (Intracellular) analysis of ab174316. HeLa (Human cervix adenocarcinoma epithelial cell) cells were fixed in 4% paraformaldehyde and permeabilized with 90% methanol. ab174316 was used at 1:100 dilution (1ug) (Red). Secondary antibody Goat anti rabbit IgG (Alexa Fluor® 647, ab150083) at 1:5000 dilution. Isotype control Rabbit monoclonal IgG (ab172730) (Black). Unlabelled control, cells without incubation with primary antibody and secondary antibody (Blue).



Immunoprecipitation - Anti-LOX antibody [EPR4025] (ab174316)

Western blot analysis on immunoprecipitation pellet from (Lane 1) WI-38 (Human fetal lung fibroblast cell line) cells lysate or (Lane 2) 1X PBS (negative control) using unpurified ab174316 at a 1/10 dilution and HRP-conjugated anti-rabbit IgG preferentially detecting the non-reduced form of rabbit IgG.
All lanes:
Immunoprecipitation - Anti-LOX antibody [EPR4025] (ab174316)

Predicted band size: 47 kDa



Western blot - Anti-LOX antibody [EPR4025] (ab174316)

Blocking buffer: 5% NFDM/TBST
Dilution buffer: 5% NFDM/TBST

All lanes:
Western blot - Anti-LOX antibody [EPR4025] (ab174316) at 1/3700 dilution

Lane 1:
WI-38 cell lysate at 20 µg

Lane 2:
Jurkat cell lysate at 20 µg

Lane 3:
Mouse brain at 20 µg

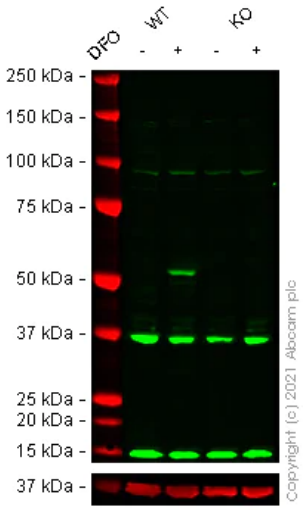
Lane 4:
Rat brain at 20 µg

Secondary

All lanes:
HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 47 kDa

Observed band size: 50 kDa



Western blot - Anti-LOX antibody [EPR4025] (ab174316)

LOX Western blot staining using rabbit Anti-LOX antibody

False colour image of Western blot: Anti-LOX antibody [EPR4025] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (ab8245) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab174316 was shown to bind specifically to LOX. A band was observed at 52 kDa in wild-type HeLa cell lysates with no signal observed at this size in Lox knockout cell line ab261801 (knockout cell lysate ab256981). To generate this image, wild-type and Lox knockout HeLa cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3% milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) at 1/20000 dilution.

All lanes:
Western blot - Anti-LOX antibody [EPR4025] (ab174316) at 1/1000 dilution

Lane 1:
Wild-type HeLa Vehicle Control DFO (0 mM, 24 h) cell lysate at 20 µg

Lane 2:
Wild-type HeLa Treated DFO (0.5 mM, 24 h) cell lysate at 20 µg

Lane 2:
Western blot - Human LOX knockout HeLa cell line (ab261801)

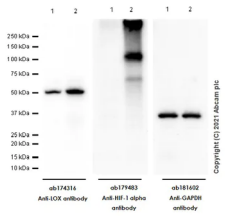
Lane 3:
LOX knockout HeLa Vehicle Control DFO (0 mM, 24 h) cell lysate at 20 µg

Lane 4:
LOX knockout HeLa Treated DFO (0.5 mM, 24 h) cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 47 kDa

Observed band size: 52 kDa



Western blot - Anti-LOX antibody [EPR4025] (ab174316)

LOX Western blot staining using rabbit Anti-LOX antibody

Primary antibody dilution:
ab174316 Anti-LOX antibody 1:5000 dilution (0.1mg/ml)

ab179483 Anti-HIF-1 alpha antibody 1:500 dilution (0.3mg/ml)

Blocking buffer / Dilution buffer and concentration:

5% NFDM/TBST

LOX and HIF-1 alpha could be induced under hypoxia condition (PMID: 23545606, PMID: 30226558).

All lanes:
Western blot - Anti-LOX antibody [EPR4025] (ab174316)

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 20 µg

Lane 2:
HeLa (Human cervix adenocarcinoma epithelial cell) treated with 0.5 mM DFO for 24 hours whole cell lysates at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/10000 dilution

Predicted band size: 47 kDa

Observed band size: 50 kDa

Exposure time: 7s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.